

Amendments to the Claims:

This listing of claims will replace all prior versions of claims in the present application:

1. (Currently Amended) A method for increasing performance within a multicast network in which a server transfers ~~multicast~~ packets to clients ~~a master client and at least one passive client~~, the method comprising:

receiving multicast packets at a master client in a multicast transfer, wherein at least one passive client listens in on the transferred multicast packets to receive the multicast packets;

determining, by the passive clients during the multicast transfer, which is a slowest passive client based on which passive client drops a highest number of packets; and

making the slowest passive client [[the]] a new master client and making the master client one of the passive clients, thereby adaptively determining which ~~passive~~ client becomes the master client to minimize network traffic, when in response to the slowest passive client [[is]] being slower than the master client, and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client;

wherein determining, by the passive clients during the multicast transfer, which is a slowest passive client based on which passive client drops a highest number of packets further includes:

counting, by a drop packet counter of each [[the]] passive client, a number of dropped packets during a multicast transfer that are dropped due to that passive client having a processing speed slower than the rate of receiving the multicast packets such that all received packets are not processed;

computing a drop ratio when the count of the number of dropped packets reaches a predetermined count threshold; [[and]]

if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become [[a]] the new master client; and [[.]]

restarting the drop packet counter in each passive client after the master client has been made into one of the passive clients.

2. (Cancelled)

3. (Currently amended) The method of claim 1 wherein making the slowest passive client the master client, thereby adaptively determining which passive client becomes the master client to minimize network traffic ~~when in response to~~ the slowest passive client [[is]] being slower than the master client and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client further includes:

in response to the server receiving the Force Master command, sending a Drop Master command from the server to the master client.

4. (Currently amended) The method of claim 3 wherein making the slowest passive client the master client, thereby adaptively determining which passive client becomes the master client to minimize network traffic ~~when in response to~~ the slowest passive client [[is]] being slower than the master client and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client further includes

sending from the master client to the server a Drop Master acknowledgement and causing the master client to enter passive client mode.

5. (Cancelled)

6. (Currently Amended) The method of claim [[5]] 4 wherein making the slowest passive client the master client, thereby adaptively determining which passive client becomes the master client to minimize network traffic ~~when in response to~~ the slowest passive client ~~[[is]] being~~ slower than the master client and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client further includes:

sending from the server a Force Master acknowledge to the passive client that issued the Force Master command.

7. (Currently Amended) A method for increasing performance within a multicast network in which a server transfers multicast packets to a master client and at least one passive client, comprising:

counting, by a drop packet counter of each ~~[[the]]~~ passive client, a number of packets dropped during a multicast transfer that are dropped due to that passive client having a processing speed slower than the rate of receiving the multicast packets such that all received packets are not processed, the multicast transfer transferring the multicast packets to the master client and the at least one passive client listening in on the transferred multicast packets to receive the multicast packets;

computing a drop ratio when the count of the number of packets dropped reaches a predetermined count threshold; ~~[[and]]~~

if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become ~~[[a]]~~ the new master client, thereby adaptively determining

which passive client becomes the master client in real-time unless the passive client is faster than the current master client; and

restarting the drop packet counter in each passive client after the master client has been made into one of the passive clients.

8. (Previously Presented) The method of claim 7 further including:

in response to the server receiving the Force Master command, sending a Drop Master command from the server to the master client.

9. (Previously Presented) The method of claim 8 further including:

sending from the master client to the server a Drop Master acknowledgement and causing the master client to enter passive client mode.

10. (Cancelled)

11. (Currently Amended) The method of claim [[10]] 9 further including:

sending from the server a Force Master acknowledge to the passive client that issued the Force Master command.

12. (Previously Presented) The method of claim 11 further including:

after the passive client receives the Force Master acknowledge, receiving the packets from the server as the new master client.

13. (Currently Amended) A multicast network system, comprising:

a server for multicasting packets over the network;

a current master client that controls the rate of multicast transfer of the packets based upon a processing speed of the current master client; and

at least one passive client listening in on the transferred multicast packets to receive the multicast packets and executing an algorithm for:

counting by a drop counter in each passive client a number of packets dropped during a multicast transfer that are dropped due to that passive client having a processing speed slower than the rate of receiving the multicast packets such that all received packets are not processed;

computing a drop ratio when the count of the number of packets dropped reaches a predetermined count threshold; and

if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become a new master client; and

restarting the drop packet counter in each passive client after the master client has been made into one of the passive clients, thereby adaptively determining which passive client becomes the master client in real-time unless the passive client is faster than the current master client.

14. (Original) The system of claim 13 wherein in response to the server receiving the Force Master command, sending a Drop Master command from the server to the master client.

15. (Original) The system of claim 14 wherein from the master client sends a Drop Master acknowledgement to the server and enters passive client mode.

16. (Cancelled)

17. (Currently amended) The system of claim [[16]] 15 wherein the server sends a Force Master acknowledge to the passive client that issued the Force Master command.

18. (Original) The system of claim 17 wherein after the passive client receives the Force Master acknowledge, the passive client receives the packets from the server as the new master client.

19. (Currently Amended) A computer-readable medium containing program instructions for increasing performance within a multicast network in which a server transfers ~~multicast~~ packets to clients ~~a master client and at least one passive client~~, the program instructions for:

receiving multicast packets at a master client in a multicast transfer, wherein at least one passive client listens in on the transferred multicast packets to receive the multicast packets;

determining, by the passive clients during the multicast transfer, which is a slowest passive client based on which passive client drops a highest number of packets; and

making the slowest passive client [[the]] a new master client and making the master client one of the passive clients, thereby adaptively determining which ~~passive~~ client becomes the master client to minimize network traffic, when in response to the slowest passive client [[is]] being slower than the master client, and not assigning the slowest passive client as master client when the slowest passive client is faster than the master client;

wherein determining, by the passive clients during the multicast transfer, which is a

slowest passive client based on which passive client drops a highest number of packets and wherein the ~~instructions~~ ~~instruction~~ further include ~~includes the instruction of:~~

counting, by a drop packet counter of each ~~[[the]]~~ passive client, a number of packets dropped during a multicast transfer that are dropped due to that passive client having a processing speed slower than the rate of receiving the multicast packets such that all received packets are not processed;

computing a drop ratio when the count of the number of packets dropped reaches a predetermined count threshold; ~~[[and]]~~

if the drop ratio reaches a configurable threshold, sending a Force Master command to the server requesting to become ~~[[a]]~~ the new master client; ~~and~~ ~~[[,]]~~

restarting the drop packet counter in each passive client after the master client has been made into one of the passive clients.

20. (Cancelled)

21. (Previously presented) The computer-readable medium of claim 19 wherein making the slowest passive client the master client, thereby adaptively determining which passive client becomes the master client to minimize network traffic further includes the instruction of:

in response to the server receiving the Force Master command, sending a Drop Master command from the server to the master client.

22. (Previously Presented) The computer-readable medium of claim 21 wherein making the slowest passive client the master client, thereby adaptively determining which passive client

becomes the master client to minimize network traffic further includes the instruction of:

sending from the master client to the server a Drop Master acknowledgement and causing the master client to enter passive client mode.

23. (Cancelled)

24. (Currently Amended) The computer-readable medium of claim [[23]] 22 wherein making the slowest passive client the master client, thereby adaptively determining which passive client becomes the master client to minimize network traffic further includes the instruction of:

sending from the server a Force Master acknowledge to the passive client that issued the Force Master command.

25. (New) The method of claim 1 wherein the master client controls the transfer and acknowledges receipt of the multicast packets, and the at least one passive client does not acknowledge receipt of the multicast packets.

26. (New) The method of claim 1 further comprising the master client requesting the multicast packets to be transferred from the server to the master client.

27. (New) The method of claim 7 wherein the master client controls a rate of the multicast transfer of the packets based upon a processing speed of the current master client and acknowledges receipt of the multicast packets, and the at least one passive client does not control

the rate of the multicast transfer nor acknowledges receipt of the multicast packets.

28. (New) The computer-readable medium of claim 19 wherein the master client controls the transfer and acknowledges receipt of the multicast packets, and the at least one passive client does not acknowledge receipt of the multicast packets.

29. (New) The computer-readable medium of claim 19 further comprising the master client requesting the multicast packets to be transferred from the server to the master client.